INCH-POUND

MS25468L
27 November 2003
SUPERSEDING
MS25468K
14 February 2001

DETAIL SPECIFICATION SHEET

RELAYS, ELECTROMAGNETIC, 10 AMPERES, 4 PDT, TYPE I, MAGNETIC LATCH, SOLDER TERMINALS, STUD MOUNTED, HERMETICALLY SEALED

INACTIVE FOR NEW DESIGN AFTER 29 FEBRUARY 2000
NO SUPERSEDING SPECIFICATION.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the relay described herein shall consist of this specification and the latest issue of MIL-PRF-6106.

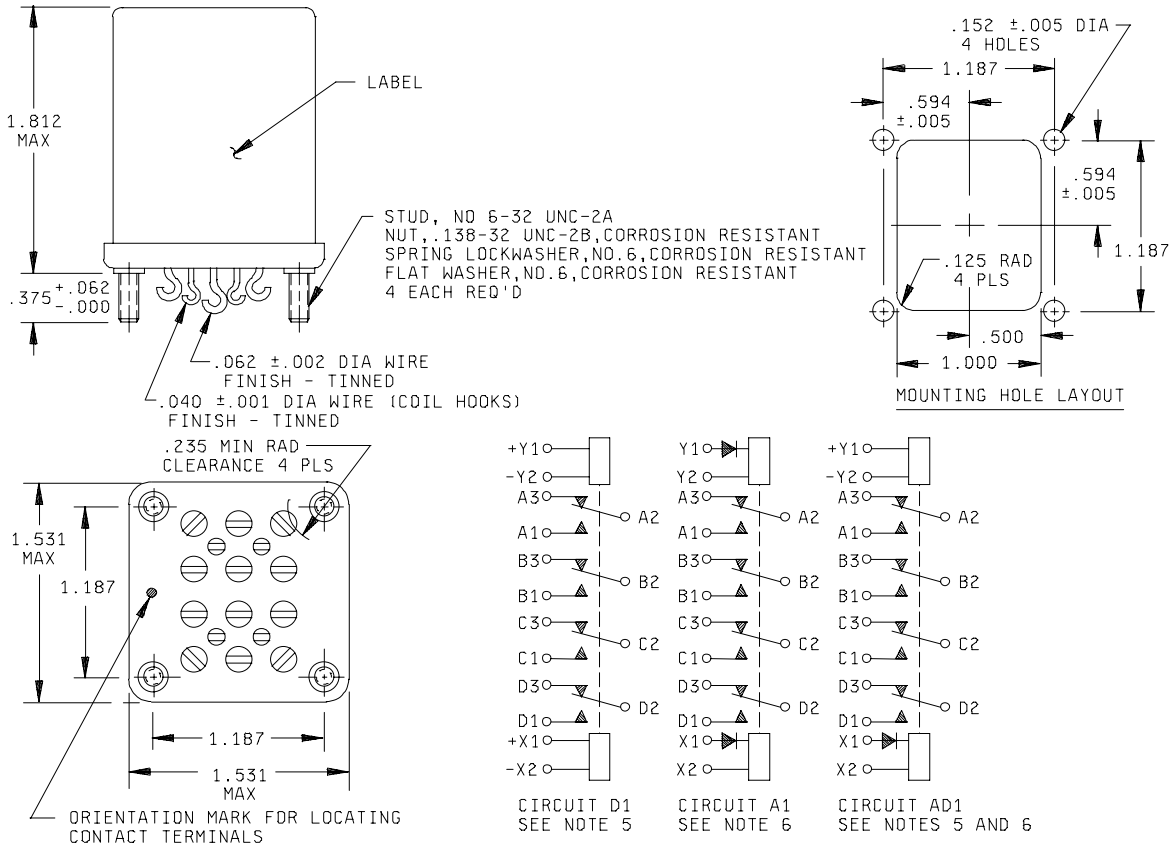

FIGURE 1. Design, dimensions, and circuit diagrams.

Inches	mm
.001	0.03
.002	0.05
.005	0.13
.010	0.25
.040	1.02
.062	1.57
.125	3.18
.152	3.86
.235	9.53
.500	12.70
.594	15.09
1.000	25.40
1.187	30.15
1.531	38.89
1.812	46.02

NOTES:
1/ Dimensions are in inches.
2/ Metric equivalents are given for general information only.
3/ Unless otherwise specified, tolerance is ±.010 (0.25 mm).
4/ Terminal numbers need not appear on relay headers provided there is affixed to the relay a suitable legible circuit diagram that permanently and positively identifies each terminal location specified hereon.
5/ Relay is magnetically latched in both positions. Caution note to observe polarity must appear on relays with dc coils.
6/ Shock, vibration, and acceleration requirements application with coils de-energized
7/ The use of diodes on ac relays is optional. The actual application must be shown on the label.
8/ In the event of conflict between the text of this specification and the references cited herein, the text of this standard shall take precedence.
9/ Referenced Government documents of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation form a part of this standard to the extent specified herein.

FIGURE 1. Dimensions, configurations, and circuit diagrams - Continued.

REQUIREMENTS:

Dimensions, configuration, and circuit diagram: See figure 1.

Dash numbers and general characteristics: See table I.

Contact data:

Load ratings: See table II.

Maximum contact drop, initial: 0.150 V.

After life test: 0.175 V.

Overload current: 40 amperes dc; 60 amperes ac.

Rupture current: 50 amperes dc; 80 amperes ac.

Coil data: See table III.

Duty rating: continuous.

Electrical data:

Minimum insulation resistance:

Initial: 100 megohms.

After life or environmental test: 50 megohms.

Dielectric strength (sea level).

	Initial	After life tests
Coil to case	1,000 V rms	1,000 V rms
Aux contacts	N/A	N/A
All other points	1,500 V rms	1,125 V rms

Dielectric strength (altitude).

		(When mounted in mating socket) 80,000 ft
Coil to case	N/A	250 V rms
Aux contacts	N/A	
All other points	N/A	350 V rms

Group B and Group C inspections may be suspended at the discretion of the qualifying activity.

ENVIRONMENTAL CHARACTERISTICS:

Temperature range: -70°C to +125°C.

Maximum altitude rating: 80,000 feet.

Shock g level: 50 g's, duration: 6 ±ms.

Duration: 11 ms.

Maximum duration contact opening: 10 μs.

Vibration, sinusoidal:

G-level: 10 g's.

Frequency range: 20 - 2,000 Hz.

Vibration, nonoperating.

G-level: 15 g's.

Acceleration: 15 g's.

Qualification by similarity: See MIL-PRF-6106.

TABLE I. Dash numbers and characteristics.

Dash number MS25468-	Type	Coil	Terminal type	Mounting or mating socket	Max weight (pounds)
D1	I	dc	Solder hook	Stud	0.40
A1	I	ac	Solder hook	Stud	0.41
AD1	I	ac-dc	Solder hook	Stud	0.41

TABLE II. Rated contact load (amperes per pole) (case grounded).

Type of load	Life operating cycles x 10^3	28 V dc		115 V ac, 1 phase		115/200 V ac, 3 phase	
		Main		Main		Main	
		NO	NC	400 Hz	60 Hz	400 Hz	60 Hz
Resistive	100	10	10	10	6	10	6
Inductive	100	N/A	N/A	N/A	N/A	N/A	N/A
Inductive	20	6	6	10	4	10	4
Motor	100	4	4	4	3	4	3
Lamp	100	2	2	2	1.5	2	1.5
Mechanical life reduced current	400	2.5	2.5	2.5	1.5	2.5	1.5
Mixed loads	Applicable in accordance with MIL-PRF-6106.						

TABLE III. Operating characteristics.

PIN MS25468-	Coil data										Time - milliseconds max		
	Coil	Volts 1/	Freq Hz	Max		Max pick-up voltage			Drop out voltage	Operate 3/	Release 4	Contact bounce Main	
				Volts	Amp	Normal 2/	High temp test	Cont current test				NO	NC
D1	X1, X2 Y1, Y2	28	dc	29	0.17	18	18	19.8	N/A	25	N/A	2	2
A1	X1, X2 Y1, Y2	115	400 5/	122	0.07	90	90	95	N/A	25	N/A	2	2
AD1 6/	X1, X2	115	400 5/	122	0.07	90	90	95	N/A	25	N/A	2	2
	Y1, Y2	28	dc	29	0.17	18	18	19.8	N/A	25	N/A	2	2

1/ CAUTION: Use of any coil voltage less than rated coil voltage will compromise the operation of the relay.
2/ Over the temperature range.
3/ With rated coil voltage.
4/ From rated coil voltage.
5/ MS25468-A1 and AD1, ac coils may be used on 60 Hz if maximum ambient temperature is limited to +85°C (maximum coil current shall be 0.077 ampere).
6/ MS25468-AD1 is inactive for new design after 29 September 1987.

CONFORMANCE INSPECTION:

Performance of groups B and C tests is not applicable to MS25468-AD1.

Part or Identifying Number (PIN): MS25468- (plus applicable dash number from table I.
Example: MS25468-D1.)

Group B and C inspections may be suspended at the discretion of the qualifying activity.

Qualification by similarity: See MIL-PRF-6106.

Custodians:
Navy - AS
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

(Project 5945-1214-15)

Review activities:
Navy – EC

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using ASSIST Online database at www.dodssp.daps.mil.